

## Work Disability Prevention and Integration

### 1019 INJURY SEVERITY, RETURN TO WORK, AND DISABILITY IN OCCUPATIONAL INJURY- DOES COMMUNITY HEALTH PLAY A ROLE?

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**Introduction** Workers' compensation data provide a source of information on occupational injuries and their burden on workers and the workplace. Many factors may influence ultimate outcome of the claim and disability status, including those external from the workplace. Occupational injury outcomes may be influenced by the health of communities in which employees live. We explored an exciting injury surveillance and analysis technique by coupling geographical information systems (GIS), workers' compensation data, and community health assessment data to determine novel risk factors for occupational injury outcomes.

**Methods** Injured employee addresses from workers' compensation data were geocoded using Esri Street Map. Geographic masking maintained individual-level confidentiality. Community health assessment categories included: health opportunities, healthy living, chronic disease/conditions, infectious disease, and injury and violence. We calculated rates and comparative risk of severity and disability duration of workers' compensation claims based on community health assessment status. Using a negative binomial model, we estimated rate ratios (RR) and 95% confidence intervals (CI) as a function of claim rate. Cox proportional hazards regression assessed differences in duration of disability based on community health assessment status and estimated hazard ratios (HR) and 95% confidence intervals (CI).

**Results** Multiple categories of assessed community health indicators affected risk of severity, claim duration, and disability for occupational injury.

**Discussion** This innovative way of combining and visualising data may identify risk factors for occupational injury that may be spatially or community-based. The health of one's community may play a role in both personal and occupational health. A holistic, total worker view should be considered for prevention of disability in workers' compensation claims.

### 106 THE IMPACT OF THE NEW LEGISLATION ON RETURN TO WORK IN BELGIUM. EXPERIENCES OF A LARGE OCCUPATIONAL HEALTH SERVICE

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**Introduction** In order to prevent long-term sickness, Belgian authorities reformed legislation on return to work (RTW). From 2017, employees have access to the occupational health physicians (OHP) to support their RTW. In addition, employers, general practitioners and medical advisors can refer to OHP for disability assessment. In this study, we investigated for which diseases and conditions, RTW was most successful.

**Methods** RTW trajectories carried out by IDEWE, one of the largest Occupational Health Services, were analysed.

Differences according to gender, applicant, company size, duration and cause of absence were calculated and compared using Chi Square test.

**Results** 506 completed RTW trajectories were available for analysis: 33,2% for male employees, 66,8% for women. 59,3% was initiated by the employee and 31,6% by the employer. Most trajectories (29,2%) were initiated in large companies, but 23,9% was carried out in companies with less than 20 employees. Mental disorders (35,5%) and musculoskeletal problems (33,1%) represent 2/3 of the causes, which corresponds with the main causes of long-term sickness absence in Belgium.

For 28,3%, the occupational physician could realise return to work after making adjustments on the job. However, 60,5% could no longer be re-employed at the same workplace (no possible job-person fit anymore). Re-integration appeared more successful for musculoskeletal disorders (37,5%) than for mental problems (only 16,6%). Finally, the chance on effective return to work reduced with duration of sickness absence. No significant differences in outcome were observed according to gender.

**Discussion** Re-integration was realised with the guidance of the OHP for almost 30% of the trajectories. RTW is most challenging for mental disorders: guidance to re-employment into a more suitable job is indispensable to avoid long-term absence. In order to achieve this, cooperation with medical advisers can be explored.

### 1114 PREDICTING LOST PRODUCTIVE TIME AND MEDICAL COST DUE TO POOR PSYCHOSOCIAL WORKING CONDITIONS: A ONE-YEAR PROSPECTIVE STUDY

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**Introduction** It is still not clear how much future excess cost for employers and the society are related to the poor psychosocial working conditions. Such prediction may be useful to prioritise interventions to improve psychosocial working conditions in the workplace.

**Methods** A baseline survey was conducted of Japanese monitors registered to an Internet survey company who were employed (in December 2015 or February 2016). Out of 5150 respondents, 3875 full-time employees were surveyed about one year later (in December 2016). The questionnaire asked respondents their psychosocial working conditions: job strain (the ratio of job demands to job control), interpersonal conflict, supervisor and coworker support, measured by the Brief Job Stress Questionnaire; and effort-reward imbalance, measured by a 10-item ERI questionnaire. The questionnaire also measured lost productive time that was converted into lost labour cost; and total medical expenditure in the past month assessed by TiC-P (Bouwman, *et al.*, 2013). Multiple linear regression analysis was conducted of the one-year increase in the total monthly cost at follow-up on the five psychosocial working conditions, adjusting for sex, age, occupation, and the cost at baseline.